

Metcalf & Eddy of Ohio, Inc.

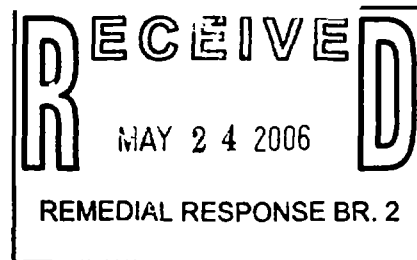
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EPA Region 5 Records Ctr.



269418



May 12, 2006

Ms. Gwendolyn Massenburg  
Project Manager Superfund Division  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard, SR-6J  
Chicago, Illinois 60604

*VIA ELECTRONIC AND UPS OVERNIGHT*

**Subject:** Metcalf & Eddy, Inc. May 12, 2006  
Contract No. 68-W6-0042; Work Assignment No. 144-RSBD-0521  
Chemical Recovery Systems – Task 1.1.6 Review of PRP Documents  
Review Comments Regarding the following Documents:

1. Draft Remedial Investigation (RI) Report, Chemical Recovery Systems, Inc., Elyria, Ohio, prepared by Parsons, Revision 2, April 2006.
2. Draft Feasibility Study (FS), Chemical Recovery Systems, Inc., Elyria, Ohio, prepared by Parsons, Revision 2, April 2006

Dear Ms. Massenburg:

At your request, Metcalf & Eddy, Inc. (M&E) has performed a review of the Respondent's RI/FS Report documents (items 1 and 2 referenced above) and is providing the attached comments for your consideration.

In general, the documents appear to adequately portray conditions at the site and remediation options. However, the Human Health Risk Assessment contained two significant issues that M&E feels should be addressed prior to finalizing the documents. These significant issues are located at the front of the review comments for each document and are identified as "Significant Technical Comments". Also, M&E considers the other comments under these sections important for providing consistency throughout the document and clarification, however, they are not likely to impact the final conclusions of the reports.

Ms. Gwendolyn Massenburg  
USEPA  
May 12, 2006

Two copies of our technical comments are attached and electronic files have been sent to you via e-mail. This review was conducted as part of Task 1.1.6 at a low level of effort. Reviewers included M&E's human health risk assessor (D. Silverman), and me, the project manager. An overall quality assurance check was made by the RAC Project Manager (D. Dwight).

We appreciate the opportunity to review and comment on these documents. If you should have questions or would like to discuss the attached comments, please call me at (216) 910-2000.

Sincerely,

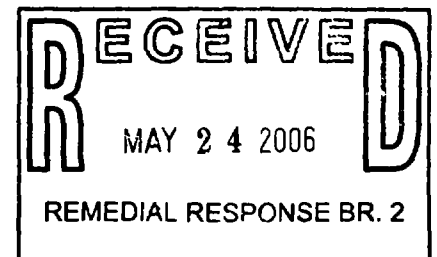
METCALF & EDDY, INC.



Robert Budzilek, P.E.  
M&E Work Assignment Manager

Attachment: M&E Technical Review Comments, May 12, 2006, 5 pages (2 copies)

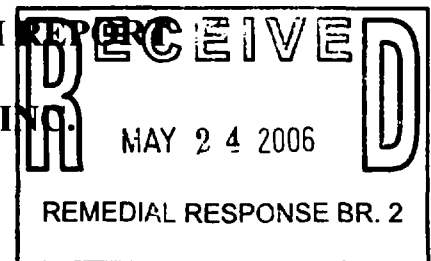
cc: Diana King, EPA Region I Project Officer (letter only)  
C. Haggar, M&E  
M&E File: 036200100.0044.0000



**Metcalf & Eddy, Inc. May 12, 2006**  
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**REVIEW COMMENTS TO THE DRAFT RI REPORT  
(REVISION 2, April 2006)  
CHEMICAL RECOVERY SYSTEMS INC.**



**General Comments**

1. In general, comments that were submitted to the PRP groups dated November 2005 have been addressed. Instances where a comment was not addressed have been identified below.

**Specific Comments**

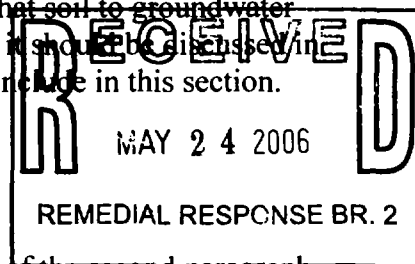
**3.0 PHYSICAL CHARACTERISTICS OF STUDY AREA**

1. **Section 3.6, general Page 19 of 40:** The presence, on and at the top of the river bank, of several trees recently felled by beavers indicates that the area of the site is attractive to wildlife, specifically beavers. This evidence should be included in the description of Terrestrial and Aquatic Wildlife.

**5.0 FATE AND TRANSPORT**

1. **Section 5.2, page 25 of 40:** EPA guidance (EPA/540/G-89/004) suggests that the Fate and Transport discussion analyze the rate of contaminant migration and the fate of contaminants at the site "over the period between release and monitoring." However, Section 5.2 is primarily a collection of general statements regarding the physical and chemical properties of the chemicals of concern, without site-specific analyses or estimates of these COCs' potential to migrate off-site. On Page 21 of

40 of the FS, it is stated that "Current sampling shows that soil to groundwater leaching is not a present concern...". If this is the case, it should be discussed in the Fate and Transport section of the RI report. Please include in this section.



## 6.0 RISK ASSESSMENT

1. **Section 6.1, page 30 of 40:** It is suggested that the text of the second paragraph be revised to provide an accurate description of the RBSCs used to select COPCs (e.g., Ohio EPA surface water criteria for surface water). Also, it is suggested that the third paragraph be further revised to indicate that a potable groundwater use scenario was quantitatively evaluated in the assessment. Lastly, it is suggested that the fifth sentence of the third paragraph be deleted since it is redundant with the text at the top of page 31 of 40. Further revisions to the human health risk assessment, as detailed below, may require updates to Section 6.1 of the RI report.

## TABLES

1. **Table 7.1:** It is suggested that Target Levels for soil contact be based on the summed risk associated with the three exposure routes of interest (ingestion, dermal contact, and inhalation). Target levels for VOCs in soil are currently based only on the inhalation pathway which is not the only exposure pathway contributing to risk. Target levels for non-volatile compounds (e.g., arsenic) should not only be based on ingestion and dermal contact since the inhalation of particulates is also a complete exposure pathway. Please re-calculate the soil target levels such that they are protective of all three exposure pathways.
2. **Table 7.1:** It is suggested that Target levels associated with a hazard quotient (HQ) of 1 be calculated for all compounds of concern because there will be instances where the target level associated with 1E-04 is greater than that associated with HQ of 1 (e.g., for benzene in indoor air from groundwater, the 1E-04 level is 53.1 mg/L while the HQ of 1 level is 43 mg/L). If the target level associated with a cancer risk of 1E-04 is selected as the site-specific cleanup level as part of the risk management process, this selected value would not be protective of non-cancer health effect. The lower of the appropriate cancer and non-cancer values should be selected for use as the cleanup level.
3. **Table 7.1:** It is suggested that Target levels for soil and groundwater compounds contributing to excess risk/hazard for residential exposures be included. Even if the site is not cleaned up to residential criteria (i.e., commercial/industrial criteria are selected as cleanup criteria), the inclusion of residential target levels may provide useful information in the future should a change in land use be contemplated by future land owners.

## APPENDIX F – HUMAN HEALTH RISK ASSESSMENT

### SIGNIFICANT TECHNICAL COMMENTS

1. **Page 19 of 41, Section 4.2:** The trespasser exposure frequency was not increased as requested and little additional justification was provided in the revised report to support the 12 days/year assumed exposure frequency. For sediment, if the PRPs are planning on taking action at the site for sediment to prevent or mitigate exposures at a greater frequency than 12 day/year, then the risk assessment needs to evaluate the higher level of assumed exposure. Section 7.2 of the RI states that sediment may pose an unacceptable risk if land use is changed from industrial use to parkland. This statement is unsubstantiated by the current risk assessment and needs to be supported by risk calculations. Cleanup of any medium or the use of institutional controls at a site can not be based on assumed risk. Instead, the risk assessment needs to demonstrate the quantitative risk before an action can be taken. Please address.
2. **Tables 14 and 15, oral absorption efficiencies:** Based on information provided in Table 16 and in the risk calculation spreadsheets, it appears that the toxicity values provided in EPA's draft trichloroethene (TCE) cancer reassessment were not used. Instead, CalEPA toxicity values were used. However, the discussion in the uncertainty section (Section 7.3) and in the Section 6.1 indicates that the draft TCE toxicity values were used in the risk calculations. A presentation of risks using the EPA draft TCE toxicity values could not be located in the revised risk assessment. Please clarify and correct the risk calculations by using the EPA's draft cancer reassessment toxicity values for TCE.

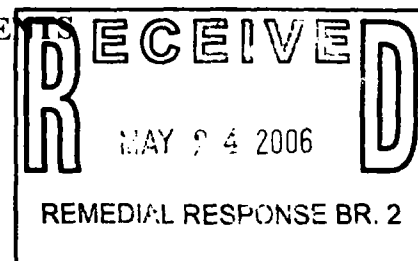
### GENERAL COMMENTS

1. **Page 10 of 41, Section 3.1, 4<sup>th</sup> bullet (previous comment):** Please provide the depth of standing surface water at each sediment collection point. Please also indicate the distance from shore for each of the sediment collection points. Sediment samples used in a human health risk assessment should be accessible to humans, considering depth of overlying water and distance from shore.
2. **Page 20 of 41, Section 4.2, last paragraph (previous comment):** The report has not been revised to include central tendency risk/hazard estimates for those pathways exceeding regulatory criteria. Please address.

## Tables

1. **Table 3, Summary Groundwater Analytical Results:** Reference to a "*G = The samples had elevated reporting limits due to matrix interferences*" data qualifier was added to Table 3. However, this qualifier does not appear to have been used to indicate which samples had detection limits above PRGs. Please address.
2. **Table 5:** For clarity, the footnote on Table 5 should be changed to reflect that HA-6 and HA-7 were combined with the other sediment samples (presented in Table 4) for quantitative evaluation.
3. **Tables 9 and 10:** The cancer risks summarized on TARA Tables 9 and 10 reflect cancer risks for the two age groups, presented individually. The text accurately summarized the summed risk for the two age groups. However, because the risks were not summed on the TARA tables, some of the soil contaminants which are significant risk contributors (based on summing) did not get identified as significant risk contributors (e.g., benzo(k)fluoranthene, Aroclor 1221, and bis(2-ethylhexyl)phthalate). It appears that only the adult cancer risks (rather than the adult/child summed cancer risks) were used to select significant risk contributors that were discussed in the text. It is recommended that the TARA Tables 9 and 10 be revised to present the summed adult/child cancer risks and the child hazard index (as the most conservative). Once the summed risks are presented, the text of the risk assessment, Section 6.1, Section 7.1.3, and the Executive Summary should be revised to correctly indicate the significant risk contributors.
4. **Table 13, future juvenile trespasser:** The trespasser exposure frequency was not increased to 50 days/year as requested and little additional justification was provided in the revised report to support the 12 days/year assumed exposure frequency. For sediment, if the PRPs are planning on taking action at the site for sediment to prevent or mitigate exposures at a greater frequency than 12 day/year, then the risk assessment needs to evaluate the higher level of assumed exposure. Section 7.2 of the RI states that sediment may pose an unacceptable risk if land use is changed from industrial use to parkland. This statement is unsubstantiated by the current risk assessment and needs to be supported by risk calculations. Cleanup of any medium or the placement of institutional controls at a site can not be based on assumed risk. Instead, the risk assessment needs to demonstrate the quantitative risk before an action can be taken.

END OF DRAFT RI REPORT COMMENTS



**REVIEW COMMENTS TO THE DRAFT FEASIBILITY STUDY  
(REVISION 2, April 2006)  
CHEMICAL RECOVERY SYSTEMS INC.**

**General Comments**

1. Comments that were submitted to the PRP groups dated November 2005 have been addressed.
2. If significant changes that alter the conclusions of the Draft RI Report, Human Health or Ecological Risk Assessments are required of the current revisions of these documents, the Draft FS report should be reviewed again in consideration of those revisions.

**END OF DRAFT FS STUDY COMMENTS**